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HORIZONTAL POLITICAL EXTERNALITIES: THE SUPPLY AND DEMAND OF DISASTER MANAGEMENT

BEN DEPOORTER†

ABSTRACT

This Article discusses the dynamics of shared political accountability and provides a supply- and demand-side analysis of disaster management. Because multiple levels of government share political accountability in national scale disasters, disaster management is subject to a collective action problem. Introducing the concept of horizontal political externalities, this Article explains the shortcomings of disaster management in terms of asymmetric political accountability costs for ex ante preparedness and ex post relief. In the presence of shared accountability, investments in prevention and relief by one government actor confer positive externalities upon other government actors by reducing the overall chance of being held responsible in ensuing disasters. In contrast, ex post disaster relief involves negative externalities when action by one agency makes other agencies or representatives look worse. Because positive externalities are undersupplied and negative externalities are oversupplied, political externalities distort disaster management policy. When political accountability is shared, no single actor bears the full brunt of accountability. In addition, uncertainty and finger-pointing reduce the total sum of political accountability. The different effects of ex ante and ex post disaster management on political accountability may shed light on events before and after Hurricane Katrina. I provide

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suggestions for further avenues of empirical and theoretical research on this new positive political theory of horizontal political externalities and political accountability losses.

INTRODUCTION

Hurricane Katrina left parts of a famous American city uninhabitable and demoralized much of the Gulf Coast region. The Katrina disaster differs in many respects from the hurricanes that regularly visit the American Southeast. Ever since French colonist Jean Baptiste le Moyne de Bienville built his settlement on hurricane-prone swampland in the middle of three huge water pools—the Mississippi Delta, the Gulf of Mexico and Lake Pontchartrain—experts have viewed these geographical features as a disaster waiting to happen.¹ Although destruction was unavoidable with a storm of Katrina's size,² the repeated warnings and anticipation of the storm accentuate the striking lack of emergency preparedness and raise doubts regarding the nation's investments in critical infrastructure.³

1. See, e.g., *Hurricane Katrina in New Orleans: A Flooded City, a Chaotic Response: Hearing Before the S. Comm. on Homeland Security & Governmental Affairs*, 109th Cong. 11 (2005) (statement of Marty Bahamonde, Regional Director, Federal Emergency Management Agency) (regarding Hurricane Katrina as "the worst-case scenario that everyone had always talked about regarding the City of New Orleans"); Mark Fischetti, *The Drowning of New Orleans*, SCI. AM., Oct. 2001, at 76, 78 (explaining that only a massive reengineering effort can save New Orleans from a catastrophic flood); John McQuaid & Mark Schleifstein, *Evolving Danger—Experts know we face a greater threat from hurricanes than previously expected. But because the land is shrinking and the coastline is disappearing, scientists can't say just how vulnerable we are*, TIMES-PICAYUNE, June 23, 2002, at J12.

2. "[N]o matter how much is spent and how much planning takes place, natural catastrophes will continue and will sometimes be unexpected." Gary S. Becker, . . . *And the Economics of Disaster Management*, WALL ST. J., Jan. 4, 2005, at A12. "While it may seem contradictory to 'plan' for an emergency—emergencies are by definition unplanned events—in fact there is considerable value in such planning." Ken Lerner, *Governmental Negligence Liability Exposure in Disaster Management*, 23 URB. LAW. 333, 334 (1991).

3. See *Hurricane Katrina: The Role of the Federal Emergency Management Agency: Hearing Before the H. Select Bipartisan Comm. to Investigate the Preparation for and Response to Hurricane Katrina*, 109th Cong. 3 (2005) (opening statement of Rep. Tom Davis, Chairman) ("Dr. Kathleen Tierney, director of the Natural Hazards Center at the University of Colorado, Boulder, said on a recent radio program that government missteps along the Gulf Coast were 'absolutely avoidable.' It was 'common knowledge,' she said, that the levees could not withstand more than a category 3 storm, that thousands of residents without cars would be stuck if an evacuation order was given, and that hesitancy in issuing mandatory evacuations would prove devastating."); William L. Waugh, Jr., *The Disaster That Was Katrina*, NAT. HAZARDS OBSERVER, Nov. 2005, at 7, 7 ("When Hurricane Katrina came ashore on August 29, she ended decades of anticipation. There were few hazards in the United States more studied by scientists and engineers and there was ample warning that a strong storm could cause the city of New

Hurricane Katrina exposed major weaknesses in government emergency management, including disaster mitigation and response and relief procedures. Inadequate planning led to critical problems regarding food delivery, medical supplies, personnel, communication networks, and evacuation assistance. The events surrounding Hurricane Katrina are sad evidence of the lack of government investment in *ex ante* action, i.e., disaster preparation. This stands in contrast to the expenditure on *ex post* disaster relief. The government currently spends billions of dollars on relief and reconstruction,⁴ but it consistently shorted precautionary investments that would have reduced today's losses at a small percentage of the costs.⁵ This Article focuses on the underlying causes of such deficiencies in national disaster planning.

In this Article I model disaster preparation and relief policies in a public choice framework in which politicians are "sellers" of disaster management policies who compete for votes from voters who are "consumers" of such policies.⁶ My analysis of the supply and demand of disaster management predicts that disaster preparation will be undersupplied and *ex post* relief will be oversupplied.⁷

Orleans to flood"); Josh White & Peter Whoriskey, *Planning, Response Are Faulted*, WASH. POST, Sept. 2, 2005, at A1 ("Jack Harrauld, director of the Institute for Crisis, Disaster and Risk Management at George Washington University, said researchers and academics have for years been studying New Orleans because of its particular vulnerabilities to disaster.").

4. "FEMA . . . made mission assignments totaling approximately \$7.4 billion," including support for the Corps of Engineers (\$3.5 billion) and other elements of the Department of Defense (\$2.2 billion), private contracts (\$1.6 billion), and public assistance to states (\$1.0 billion). PRESIDENT'S COUNCIL ON INTEGRITY AND EFFICIENCY, HOMELAND SECURITY ROUNDTABLE, COMPENDIUM OF HURRICANE OVERSIGHT IN THE GULF STATES 3 (2005).

5. In addition to suboptimal investment in levees, natural barriers, and zoning regulation, some of the harm is due to decreased funding of emergency management. See *Recovering after Katrina: Ensuring That FEMA Is up to the Task: Hearing Before the Subcomm. on Economic Development, Public Buildings & Emergency Management of the H. Comm. on Transportation and Infrastructure*, 109th Cong. 2 (2005) (statement of Janice R. Kilgore, CEM, Director, Department of Public Safety, Escambia County, Fla.) ("State and Federal governments should increase funding specific to emergency management activities. In the fiscal year that just ended (04/05) Escambia County's share of FEMA's emergency management funding was only \$47,222. This was \$43.00 less than the prior year (03/04) and \$82.00 less than the year before that (02/03). Funding levels should be increasing not decreasing if we are going to build an adequate emergency management response in this Country.").

6. See RICHARD A. POSNER, LAW, PRAGMATISM, AND DEMOCRACY 165–66 (2003) (defining the reality of American democracy as a type of market for votes and services). I assume that, even when designing disaster management, political actors will take into account the electoral impact of their actions, alongside public interest considerations.

7. I evaluate disaster management from a cost-benefit perspective. The model of shared accountability could also be extended to examine the distorting effects of horizontal political

There is an overlap in political accountability among the different levels of government with regard to national disaster management.⁸ Consequently, the decision of one political actor affects the political standing of other actors. In particular, when accountability is shared among different government actors, investments in disaster preparation confer benefits upon other government actors. That is, an investment in disaster preparation by one actor decreases the chance that others will be held responsible after a disaster. I call this a *positive* horizontal political externality. In contrast, ex post relief efforts impose costs on other government actors. When one political actor provides ex post relief, political actors that do not provide relief look relatively worse. I call this a *negative* horizontal political externality.

Because political actors lack the incentive to confer benefits on *other* actors, they will undersupply disaster preparation policies. This may explain the lack of investment prior to Katrina into Louisiana's levee systems, zoning regulation, and emergency planning. But because the costs of ex post relief are imposed on other political actors, one may see an oversupply of ex post relief.⁹ In fact, this is what occurred after Katrina.

Furthermore, this Article argues that shared responsibilities create political accountability deadweight losses. That is, shared responsibility and finger-pointing among political actors confuses the public, thereby reducing the total amount of political accountability.

Part I examines the dynamics of shared political accountability and provides a supply-side analysis of disaster management. It also applies the concept of horizontal and vertical political externalities to disaster management and strategic decisionmaking among government actors. Part II analyzes demand-side factors in disaster management. This part introduces the concept of political deadweight losses and discusses the effect of voters' cognitive bias on the demand for disaster management policies. I conclude with suggestions for further avenues of empirical and theoretical research.

externalities using other hypothetical benchmarks for disaster management, such as precautionary principles and fairness or humanitarian considerations.

8. Political accountability refers to the degree to which a political body is held responsible, as reflected by the impact on its election prospects or approval ratings.

9. It might seem odd to speak in terms of an oversupply of relief for disasters. Excessive relief, however, might consist of duplicative expenditures or expenditures in which the benefits do not justify the costs. Also, on a comparative level, ex post expenditures may be considered excessive whenever they could be avoided with less costly ex ante investments.

I. THE SUPPLY SIDE OF DISASTER MANAGEMENT

Because various government actors share responsibilities in national scale disasters, there are interaction effects among government actors in national disaster management. The interaction between the different levels of government influences the supply of emergency preparation and ex post relief. In this Part, I examine these interaction effects and their impact on the supply of disaster management.

A. *Shared Political Accountability*

The public sees the political responsibility for national disaster management as shared among the different levels of government. This causes the decisions of one political actor to affect the political standing of others. In particular, the public holds one level of government accountable for the actions of another. In this context, accountability refers to the degree to which a political actor will be held responsible, as reflected in election results¹⁰ or approval ratings.¹¹

Shared political accountability is a result of both institutional and subjective factors. With respect to the institutional factors, the large scale of national disasters involves a high degree of overlap in the allocation of disaster management tasks across the levels of government. For example, state and local levels handle ex post relief activities, and the federal government offers assistance¹² and provides incentives to local and state government officials to engage in optimal mitigation.¹³ The Federal Emergency Management Agency (FEMA)

10. In the literature of political economy, political accountability is generally associated with elections. See generally V.O. KEY, JR., *THE RESPONSIBLE ELECTORATE* (1966) (arguing that by basing their votes on evaluations of performance, voters provide incentives to incumbents to pay attention to their preferences).

11. Political accountability may also be measured more continuously by examining approval ratings. I am grateful to Matthew Adler for suggesting approval ratings as a yardstick to measure accountability.

12. An increasing number of federal programs of disaster preparedness have been adopted. This expanding area of regulation includes the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1974, Pub. L. No. 93-288, 88 Stat. 143 (codified as amended in scattered sections of U.S.C.), and the Disaster Mitigation Act of 2000, Pub. L. No. 106-390, 114 Stat. 1552 (codified in scattered sections of 42 U.S.C.). Other federal programs include the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §§ 9601-9675 (2000), the Earthquake Loss Reduction Act of 2001, H.R. 2762, 107th Cong. (1st Sess. 2001), and the Earthquake Loss Reduction Act of 2001, S.424, 107th Cong. (1st Sess. 2001).

13. For example, 42 U.S.C. § 5172(b)(2) (2000) provides that "the President shall promulgate regulations to reduce the Federal share of assistance" if facilities have "been

manages disaster preparation and response programs¹⁴ in coordination with state and local governments.¹⁵ Although evacuation policies are set principally in state law and local ordinances, many aspects of civilian evacuation reside at the federal level.¹⁶ When the scale of a disaster overwhelms state and local authorities, federal officials are required to assist evacuation procedures,¹⁷ and must take the lead “on coordinating necessary decisions, support research and rescue efforts, and . . . provide public health, medical, and mental health support at casualty evacuation points and refugee shelters.”¹⁸ Law enforcement in disaster management involves shared duties among the FBI, the U.S. Marshall Service (USMS), the Drug Enforcement Agency (DEA), and the Bureau of Alcohol, Tobacco, Firearms and Explosives.¹⁹ During Hurricane Katrina these agencies

damaged, on more than one occasion within the preceding 10-year period, by the same type of event; and . . . the owner . . . has failed to implement appropriate mitigation measures to address the hazard that caused the damage to the facility.”). Such division of incentives adds to the complex web of fragmented political responsibilities with regard to disaster management

14. Exec. Order No. 12,148, 3 C.F.R. 412 (1979).

15. In 1995, for example, FEMA introduced a National Mitigation Strategy, which attempted to reduce exposure to disasters in a partnership between all levels of government and the private sector. FEDERAL EMERGENCY MANAGEMENT AGENCY, MULTI-HAZARD IDENTIFICATION RISK ASSESSMENT xxii (1997). Other projects, such as the Impact Program, measured communities’ level of disaster resistance. See Disaster Research Ctr., Disaster Resistant Communities Initiative: Process Evaluation of FEMA’s Project Impact, <http://www.udel.edu/DRC/drci.html> (lasted visited Sept. 3, 2006) (“In 1997, the Federal Emergency Management Agency began the pilot stage of Project Impact, a program designed to encourage local communities to step up their efforts to contain future disaster losses. The goals of the program are to mobilize resources, stimulate the development of partnerships, spur mitigation activities, and enable communities to cope more effectively when disasters occur, so as to reduce long-term losses.”).

16. See generally KEITH BEA, CONG. RESEARCH SERV., DISASTER EVACUATION AND DISPLACEMENT POLICY: ISSUES FOR CONGRESS (2005), available at <http://www.fas.org/sgp/crs/misc/RS22235.pdf> (elaborating the powers and roles of local governments in evacuations). For instance, federal statutes authorize agency heads to apply federal resources to assist disaster evacuations. Section 403 of the Disaster Relief and Emergency Amendments of 1988 provide that the president may direct the secretary of defense to apply resources to perform “emergency work which is made necessary by such incident and which is essential for the preservation of life and property.” 42 U.S.C. § 5170b(c)(1) (2000). “[F]ederal policy defers to the states to enact laws pertinent to evacuation [measures], and local officials . . . work with state officials to enforce [these] laws.” BEA, *supra*, at 2.

17. U.S. DEP’T OF HOMELAND SEC., THE NATIONAL RESPONSE PLAN 8 (2004). The National Response Plan (NPR) vests the responsibility for the displacement, the provision of shelter, and the provision of resources to areas of displacement in both FEMA and the American Red Cross. *Id.* at 11.

18. *Id.* at 2–3.

19. On September 2, 2005, the attorney general called upon “[t]he FBI . . . to deploy special agents . . . and tactical [and communication] assets . . . ; [t]he DEA . . . to deploy Mobile

performed alongside state and local authorities, such as local police officials.²⁰ This brief description of the shared duties of federal, state and local governments illustrates how no single layer of government has unilateral control over the response to disasters.²¹ In this setting of entangled responsibilities, politicians may realize that their actions will impact each other's accountability in the market for votes.

Second, accountability also depends on the public's perception of shared responsibility. As illustrated above, disaster management involves a high degree of overlapping duties across different levels of government. This increases the public's perception that political responsibility for disaster management cuts across all levels of government. But the public's perception may also be unrelated to this formal assignment of duties. For example, even though certain relief activities may reside exclusively with the local government, shortcomings in relief efforts during a natural disaster may negatively affect the approval ratings of other levels of government if the public believes that the president, the federal government, or the governor are *always* responsible during national disasters or, alternatively, if the public holds a mistaken belief that different levels of government share responsibilities in such relief efforts.

Shared political accountability creates a common pool problem. The supply of emergency preparedness in these areas requires coordination among the various levels of government. The different levels of government must successfully coordinate their efforts;

Enforcement Teams, special agents, and . . . helicopters and aircraft . . . ; [t]he ATF to establish a Violent Crime Impact Team (VCIT) . . . ; and [t]he USMS . . . to deploy Deputy U.S. Marshals to conduct prisoner transport operations and . . . additional court security" services. *Hurricane Katrina: Managing Law Enforcement and Communications in a Catastrophe: Hearing Before the S. Comm. on Homeland Security & Government Affairs*, 109th Cong. 2-3 (2006) (statement of Kenneth W. Kaiser, Special Agent in Charge, Boston Field Office, FBI), available at http://hsgac.senate.gov/_files/020606Kaiser.pdf. Although limited to special circumstances, even the FBI assumes certain duties pertaining to the unique law enforcement needs that might arise as a result of natural disasters.

20. The National Incident Management System (NIMS), a federal program with mutual aid features that provides local agencies with federal resources, emphasizes mutual cooperation as an essential component of law enforcement in emergencies. OFFICE OF JUSTICE PROGRAMS, U.S. DEP'T OF JUSTICE, MUTUAL AID: MULTIJURISDICTIONAL PARTNERSHIP FOR MEETING REGIONAL THREATS, at xiii (2005).

21. See Richard A. Falkenrath, Senior Fellow, Brookings Inst., Panel Discussion at the Brookings Institution: Hurricane Katrina: Where Do We Go From Here? (Sept. 8, 2005) (transcript available at <http://www.brookings.edu/comm/events/20050908.pdf>) ("[O]ur response as a nation is highly interdependent [I]f one layer of government or one agency within one layer of government gets [things] catastrophically wrong, the entire response will be handicapped as a result of that.").

otherwise, there may be too much or too little supply of disaster management policies.²² For example, when a public policy is politically attractive—that is, it is expected to generate additional votes in an upcoming election or lead to higher approval ratings for an incumbent politician—a single government decisionmaker will adopt the program. In contrast, when two government actors compete for the supply of politically attractive programs, “it is in the interest of both suppliers to seek to gain the votes in implementing the program first.”²³ Because political suppliers are at risk of losing votes to each other, they each attempt to obtain the political gain first. Even when one assumes that politicians are principally concerned with maximizing social welfare,²⁴ the competitive nature of the electoral process might undermine the optimal provision of public goods and services. That is, if political suppliers consider merely the electoral costs and benefits of their policy decisions, each level of government will try to outbid the other in an attempt to “pre-empt the political field”²⁵ and attain the highest amount of approval. Because politicians do not consider the impact of their policies on other levels of government, they will not take account of the direct and indirect external effects created by their decisions. This is the basic premise of political externalities on the decisionmaking of political actors.

B. Horizontal and Vertical Political Externalities

The term “political externalities” has been used on a few occasions in the literature to describe situations in which the political process allows some individuals to obtain the benefit of an activity without being “forced to bear the full cost of the activity.”²⁶ In public choice theory, it has been used mostly to refer to “the ability of some groups to use the power of government to transfer benefits to

22. Common pool dilemmas engender social waste when actors do not fully internalize the cost of their activities. Garrett Hardin, *The Tragedy of the Commons*, 162 SCI. 1243, 1243–48 (1968). This may result in a race to capture. For example, government actors might spend money whenever they think they can reap political benefits. If each government actor decides in this manner, duplicate expenditures may result.

23. Jean-Luc Migué, *Public Choice in a Federal System*, 90 PUB. CHOICE 235, 239 (1997).

24. *Id.*

25. *Id.* at 241.

26. Todd J. Zywicki, *Baptists?: The Political Economy of Environmental Interest Groups*, 53 CASE W. RES. L. REV. 315, 318 (2002).

themselves without being forced to pay compensation to the losers.²⁷ In the context of federalism it refers to situations “in which state legislatures are able to provide benefits to local interests by imposing costs on politically disorganized individuals who do not reside within the state.”²⁸ More often, it has been used simply to refer to political decisions that impose external costs on other jurisdictions.²⁹ In this situation, “political” externalities amount to negative or positive externalities imposed by citizens upon each other through the political process.

I propose here to extend the application of the term *political externalities* to externalities that apply not merely vertically, in which some constituents obtain benefits at the expense of other constituents, but also horizontally, i.e., among different political actors and levels of government. Horizontal political externalities arise whenever political decisions impact the electoral outcome or approval ratings of other political actors or levels of government that were not involved in the decisionmaking. In this sense horizontal externalities are truly “political” externalities: the third-party costs relate to political effects as measured by election prospects or approval ratings.

One can further distinguish between positive and negative horizontal political externalities. Political action may have a positive effect on the electoral chances or approval ratings of other levels of government. For example, when there is an overlap in duties

27. *Id.* at 320; see also JAMES M. BUCHANAN & GORDON TULLOCK, *THE CALCULUS OF CONSENT: LOGICAL FOUNDATIONS OF A CONSTITUTIONAL DEMOCRACY* 89 (1962) (“The member of the dissident minority suffers external effects of collective decisions enforced on him”); James M. Buchanan & Gordon Tullock, *Polluters’ Profits and Political Response: Direct Controls Versus Taxes*, 65 AM. ECON. REV. 139, 141–42 (1975) (stating that firms seek economic regulation in order to obtain above-market rate returns); Todd J. Zywicki, *Environmental Externalities and Political Externalities: The Political Economy of Environmental Regulation and Reform*, 73 TUL. L. REV. 845, 856–74 (1999) (arguing that many environmental regulations can be explained by the rent-seeking behavior of environmental interest groups that use the coercive power of government to pursue utility and wealth at the expense of other individuals to subsidize these preferences).

28. Jonathan R. Macey, *State Anti-Takeover Legislation and the National Economy*, 1988 WIS. L. REV. 467, 471 (explaining the disposition of state legislators towards state antitakeover laws).

29. See, e.g., Richard B. Stewart, *Environmental Regulation and International Competitiveness*, 102 YALE L.J. 2039, 2054 (1993) (“[N]ations will often fail to adopt appropriate environmental standards because of a political externality; the costs of more stringent standards will be borne by the nation adopting them, whereas a significant portion of the benefits will go to those in other countries.”).

regarding public health issues such as obesity, a federal program that successfully tackles this issue may have a positive effect on the standing of other levels of government that have shared responsibilities in this area. If there is an overlap of responsibilities, a successful federal program that reduces obesity will decrease the political liability on this issue for local and state government actors. Because other levels of government are able to free ride on obesity management, this may free up budgetary means for politically rewarding expenditures on other issues. Also, as an indirect effect of the federal program, public attention might be drawn away from other (related) public health issues. In other cases, policies implemented by one level of government may have a negative effect on the political standing of other levels of government. For example, political actors who share responsibility may appear inactive by comparison.

Thus, public perceptions of responsibility may create interdependency between different governmental actors with respect to approval ratings and electoral payoffs. Such interdependency may lead to strategic decisionmaking among the various levels of government. As I contend next, horizontal political externalities may provide some explanation for the contrast between political inertia regarding preparation before a disaster, on the one hand, and the abundance of relief after a disaster, on the other hand.³⁰

C. The Supply Effect of Horizontal Externalities on Disaster Management

Each level of government has two general options with regard to disaster management: (1) preparation and mitigation policies implemented prior to a disaster, and (2) relief policies implemented after a disaster. Politicians concerned with approval ratings and reelection prospects will consider the political implications of these general options. This may affect policies in disaster management in a number of ways.

The political rewards from ex ante and ex post disaster management policies are very different. First, the electoral impact of expenditures in ex post disaster management is higher than the electoral benefit of investing in ex ante disaster preparation.

30. Note that such disaster relief will be relatively ineffective when prior investments in preparedness have not been made.

Investments in ex ante preparation reduce the risk and magnitude of damage from disasters. But the results are relatively more uncertain and less tangible than expenditures in ex post relief. Sending in troops, personnel, and food and medical supplies is highly visible and susceptible to media coverage. In contrast, successful efforts at preventing harm and increasing preparedness do not attract a great deal of media attention. For example, a local municipality's stringent enforcement of building codes will receive less attention than the ex post rescue efforts after a building collapse, even though preventing code violations may save more lives.³¹ Second, political actors immediately capture the political rewards from ex post relief, whereas political rewards from ex ante preparation may only materialize outside the electoral time horizon of a politician. Because politicians are concerned with getting reelected, they have limited time horizons, leading them to "prefer policies that yield tangible benefits for constituents in the near term."³²

Also, ex post relief is more likely to confer negative externalities on other levels of government. This will likely induce high levels of ex post relief efforts by the federal government and state governments. For example, Texas sent troops and medical personnel to the Gulf Coast region after Katrina made landfall, and this affected the costs and benefits of participating in the relief effort for other states like Florida. Representatives in Texas and Florida were probably aware of voters' sensitivity about natural disasters and the government response to such events, because both regions are disaster-prone. When Texas sent troops and supplies, this probably put pressure on Florida to do the same to avoid appearing disinterested to voters. Consequently, Florida immediately sent in teams of doctors and nurses as well as \$40 million in relief aid.³³ San Antonio offered temporary housing to twenty-five thousand evacuees,³⁴ and Texas governor Rick Perry quickly responded by coordinating relief efforts with other states and promised schooling for displaced children.³⁵

31. Such a policy will be more efficient, for example, if it reduces an equal number of potential victims at a lower cost.

32. RICHARD A. POSNER, *CATASTROPHE* 137 (2004).

33. *Special Report: When Government Fails—Katrina's Aftermath*, *ECONOMIST*, Sept. 10, 2005, at 25, 27.

34. *Id.*

35. *Louisiana Seeks Schools for Displaced Students*, CNN.COM, Sept. 1, 2005, <http://www.cnn.com/2005/EDUCATION/09/01/katrina.schools/index.html> (last visited Oct. 12, 2006).

Arkansas welcomed seventy thousand refugees by opening National Guard armories and churches. Wisconsin and Minnesota offered housing to thousand of refugees.

The federal government also participated in the race to provide relief. More than sixteen thousand federal personnel were deployed to help state and local officials along the Gulf Coast recover from the damage.³⁶ The National Guard deployed over forty-five thousand troops to Louisiana and Mississippi two weeks after Katrina's landfall.³⁷ Federal support to state and local officials and volunteer organizations enabled relief activities and assisted with law enforcement operations in areas affected by Hurricane Katrina. As of February 2006, \$88 billion in federal aid had been allocated for relief, recovery, and rebuilding, with another \$20 billion requested to help victims of the storm and to rebuild the region.³⁸ But the federal government and state governments consistently shorted precautionary investments that would have reduced losses at a small percentage of the costs.

Because ex post disaster relief has the potential for high political reward, one would expect politicians to be interested in increasing its effectiveness through advance planning. Such investments could improve many aspects of ex post disaster relief such as evacuation measures, the delivery of supplies, and the continued operation of communication networks. Also, relief efforts may be perceived as more effective, thereby leading to greater political reward. So why do governments fail to plan in advance? First, the political benefits of ex ante preparation policies are not immediate and may accrue beyond the time horizons of many politicians.

Second, there is an indivisibility and common pool problem. Because major disaster management planning necessarily involves various levels of government, the political benefits of such planning are automatically shared with other levels of government, that is, investing in planning confers positive externalities on other levels of

36. Press Release, White House, Fact Sheet: A Commitment to Continued Recovery and Rebuilding in the Gulf Coast (Dec. 21, 2005), <http://www.whitehouse.gov/news/releases/2005/12/20051221-10.html> (last visited Sept. 20, 2006).

37. Mark Sappenfield, *Katrina Poses Key Test for Stretched National Guard*, CHRISTIAN SCI. MONITOR, Sept. 2, 2005, at 2.

38. OFFICE OF THE FED. COORDINATOR FOR GULF COAST REBUILDING, DEP'T OF HOMELAND SEC., PROGRESS MADE: A 6-MONTH UPDATE ON HURRICANE RELIEF, RECOVERY AND REBUILDING 1 (2006), available at http://www.dhs.gov/interweb/assetlibrary/GulfCoast_Katrina6-monthFactSheet2-2806.pdf.

government. These positive externalities reduce the potential political liability that other political actors face. Accordingly, political actors will free ride on the efforts of their peers who do engage in preparation and planning. The result is an undersupply of disaster preparation and mitigation policies.

Shared political accountability in the disaster management context brings to mind a well-known proposition in social psychology regarding the debilitating effect of diffused responsibility in collective action settings. When members of a group perceive that their obligation to act is shared with other members of the group, individual responsibility is diluted.³⁹ Shared responsibilities lead to lower individual responsibilities, which lower the total sum of responsibility. Similar phenomena may explain the undersupply of disaster preparation and mitigation policies. Even discounting hindsight bias, it is now well documented that virtually all levels of government have underinvested in precautions for a major hurricane in the Gulf Coast region. Despite repeated warnings⁴⁰ and recommendations,⁴¹ there was a lack of investment in levee construction, weak enforcement of building codes, inadequate evacuation planning, insufficient shelter, a shortage of supplies, poor

39. See generally Bernard Guerin, *Social Behaviors as Determined by Different Arrangements of Social Consequences: Diffusion of Responsibility Effect with Competition*, 143 J. SOC. PSYCHOL. 313 (2003); Bibb Latané & John M. Darley, *Group Inhibition of Bystander Intervention in Emergencies*, 10 J. PERSONALITY & SOC. PSYCHOL. 215 (1968); Daniel M. Wegner & Donna Schaefer, *The Concentration of Responsibility: An Objective Self-Awareness Analysis of Group Size Effects in Helping Situations*, 36 J. PERSONALITY & SOC. PSYCHOL. 147 (1978).

40. Experts had warned about the catastrophic likelihood of the passage of a major hurricane through Louisiana. The risk of a major hurricane striking and flooding New Orleans had been covered in issues of *Scientific American* and *National Geographic* in 2001 and 2004 respectively, and featured prominently in a specialized literature on disaster emergency planning. See Shirley Laska, *What if Hurricane Ivan Had Not Missed New Orleans?*, 29 NAT. HAZARDS OBSERVER 5, 5-6 (2004).

41. After Hurricane Andrew in 1992, a Grand Jury Report of Dade County conducted an in-depth analysis of many of the disaster management failures that surfaced again after that storm. See generally Stephen T. Maher, *Emergency Decisionmaking During the State of Florida's Response to Hurricane Andrew*, 17 NOVA L. REV. 1009 (1993). Similarly, Florida's Disaster Planning and Response Review Committee recommended constructing better shelters in threatened areas and improving the accessibility of communication networks before and after disasters to better plan increased-capacity evacuation routes for handling mass exodus traffic out of city areas. SPEAKER'S TASK FORCE ON EMERGENCY PREPAREDNESS, FLA. HOUSE OF REPS., FINAL REPORT 6 (1990).

cooperation and communication between different levels of government, and the list goes on.⁴²

Shared accountability leads politicians to impose external costs on one another. Furthermore, it leads to inferior policymaking, which imposes costs on citizens: "Governments' actions . . . impact . . . most citizens by the very fact of being taken."⁴³ For this reason, government decisions "take on characteristics of public, non-divisible goods."⁴⁴ Thus, there are two aspects to horizontal political externalities: political actors impose costs on other political actors, and in so doing political actors impose costs on citizens through inferior policymaking.⁴⁵

D. Political Markets and Political Transaction Costs

If shared political accountability and political externalities misalign policymaking and voter preferences, what can voters do to avoid the costs imposed by the undersupply of disaster preparation? Voters have two options. In terms of the famous model of Albert Hirschman,⁴⁶ they can either exit or use their voice, that is, leave political districts that have poor disaster preparation (exit), or not vote for the politician that failed to adopt sound disaster management policies (voice).⁴⁷

Voters can withdraw support from local governments by relocating out of political jurisdictions that fail to satisfy voter preferences.⁴⁸ The availability of the escape option is limited by the

42. Many, if not all, of these observations can be found in H.R. REP. NO. 109-377 and THE FEDERAL RESPONSE TO HURRICANE KATRINA: LESSONS LEARNED, *infra* note 57, at 51-64.

43. Migué, *supra* note 23, at 248.

44. *Id.*

45. This is where horizontal and vertical political externalities connect. Because of their effect on policy, horizontal political externalities impose external costs on citizens.

46. See generally ALBERT O. HIRSCHMAN, EXIT, VOICE AND LOYALTY: RESPONSES TO DECLINE IN FIRMS, ORGANIZATIONS, AND STATES (1970).

47. *Id.* at 4. Of course this option is limited when incumbents are in their last term of office. But see Gary Becker & George Stigler, *Law Enforcement, Malfeasance, and Compensation of Enforcers*, 3 J. LEGAL STUD. 1, 6-11 (1974) (providing suggestions to solve the last-period problem for incumbents who are not running for office again, such as the threat of losing pension in case of misbehavior in their last term).

48. See, e.g., Dennis C. Mueller, *Buchanan, James McGill*, in 1 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW 181, 183 (Peter Newman ed., 1988) ("Tiebout's famous demonstration . . . that free mobility of individuals across local communities can produce a Pareto-optimal allocation of local public goods is a classic argument for a decentralized, federalist government . . .").

fact that transaction costs are larger in political than in private markets. "[T]he mobility exit is far from costless,"⁴⁹ and in any case is unavailable when political externalities are widespread. Voters also have the periodic opportunity to make themselves heard in the voting booth. Horizontal political externalities open the door to opposing politicians, outsiders, and antipolitical sentiments. Thus, one would expect politicians to improve their policymaking by taking externalities into account. But will politicians remove political externalities? Not necessarily.

Horizontal externalities are caused by uncoordinated, self-interested behavior of political suppliers who compete in a market for votes. To overcome horizontal externalities, therefore, some cooperation among politicians is necessary. The issue is whether politicians can overcome collective inaction through voluntary bargaining. The answer to this question depends on the transaction costs of political markets.

Obviously, political transaction costs increase with the number of political bodies that share political duties. Political transaction costs will also be higher when party affiliations vary more across different levels of government. For example, a Democratic governor may face pressure from his party to refrain from bipartisan policies that would confer benefits on a Republican mayor or a Republican White House. This pressure may be particularly acute when elections are near and party loyalty requires partisan support for challengers on these levels of government. In some sense, calls for bipartisan efforts in disaster management are aimed at reducing the strategic considerations that are part of the political transaction costs that enable horizontal political externalities.

More fundamentally, transaction costs and the likely success of coordination between political actors will be different for positive and negative political externalities. With regard to positive externalities, political actors need to overcome the individual incentive to sit back and free ride on the efforts of other levels of government. Due to the balance of power and the lack of hierarchy between different levels of government, such coordination will not be easy. Removing negative externalities may be even more difficult. First, negative horizontal political externalities are a zero-sum game to political competitors. One politician's gain in electoral support or approval ratings is

49. *Id.*

another politician's loss. This may diminish the potential bargaining range.

Second, the pressure on politicians to remove negative externalities might be lower than with positive externalities. This is because the result of negative externalities is excessive disaster relief, and the tragedy that follows a disaster will quiet most criticisms about these excessive relief efforts. Even though such efforts might be considered wasteful, they are insulated by the appearance of good intentions and humanitarian concerns. In contrast, the result of positive externalities is underinvestment in disaster preparation. There is more pressure to remove these externalities because underinvestment is often associated with neglect or disinterest. Regardless, because negative horizontal externalities are politically less costly, it is unlikely that politicians will overcome the collective action problem independently.

II. THE DEMAND SIDE OF DISASTER MANAGEMENT

To this point, I have focused exclusively on supply-side factors to explain failures in disaster management. Here, I discuss the effect of demand-side factors. Political actors seeking reelection are driven by voter preferences or the actors' perceptions of those preferences. This Part first argues that political markets fail to fully discipline politicians because shared accountability reduces the overall sum of accountability. Then it discusses the effect of voters' cognitive bias on the demand for disaster management policies.

A. *Political Accountability Deadweight Losses*

Part I considered the effect that shared political responsibility has on the supply of disaster management policies. In that discussion, I assumed that the voters' demand for such policies is strong and constant. But shared accountability may affect not only the supply of disaster management policies, it may also affect the demand for disaster management by reducing the degree to which politicians are held responsible.

As stated earlier,⁵⁰ political accountability is highly subjective. It is difficult for the public to observe and assign specific responsibilities for government failings. This provides an opportunity for strategic

50. See *supra* Part I.A.

action among political actors. Take, for instance, the blame game that ensued once the failure of the relief effort and the lack of preparation became apparent. The confusion and uncertainty created by the many accusations made in the media by various political actors may ultimately reduce the total sum of political accountability. Hence, the blame game might be a profitable strategy for individual politicians and politicians as a group.

Although they repeatedly expressed their distaste for finger-pointing in public statements,⁵¹ federal, state, and local actors shifted blame to each other as the shortcomings of the relief efforts became apparent. According to some media sources, the White House waged an organized campaign to direct focus on state and local responsibilities.⁵² The Director of Homeland Security directed attention to state and local failures, speaking in terms of a “cascading series of breakdowns.”⁵³ Most famous perhaps is Karl Rove’s statement that “[t]he only mistake we made with Katrina was not overriding the local government”⁵⁴ Representative Tom DeLay, then Republican House majority leader, characterized the Katrina

51. President Bush repeatedly told reporters that he had no interest in “play[ing] the blame game.” See Fred Goldstein, *Drowning New Orleans*, WORKERS WORLD, Sept. 15, 2005, <http://www.workers.org/2005/us/putrid-waters-0915> (“President George W. Bush, flanked by his cabinet, deflected media questions about the slowness of the federal government’s response to the hurricane disaster by declaring that he did not want to ‘play the blame game.’”).

52. See Adam Nagourney & Anne E. Kornblut, *White House Enacts a Plan to Ease Political Damage*, N.Y. TIMES, Sept. 5, 2005, at A14 (“Under the command of President Bush’s two senior political advisers, the White House rolled out a plan this weekend to contain the political damage from the administration’s response to Hurricane Katrina It began late last week after Congressional Republicans called White House officials to register alarm about what they saw as a feeble response by Mr. Bush to the hurricane The administration is also working to shift the blame away from the White House and toward officials of New Orleans and Louisiana who, as it happens, are Democrats.”); Jim VandeHei, *Officials Deal With Political Fallout by Pointing Fingers*, WASH. POST, Sept. 5, 2005, at A17 (“In public statements and even more bluntly behind the scenes, Bush administration officials have questioned local efforts to rescue thousands of people who were stranded for days without food, water and shelter, resulting in [the] death of an unknown number of Americans.”).

53. Scott Shane, *After Failures, Government Officials Play Blame Game*, N.Y. TIMES, Sept. 5, 2005, at A1; see also Statement by Secretary of Homeland Security Michael Chertoff on *Meet the Press* (NBC television broadcast Sept. 4, 2005) (transcript on file with the *Duke Law Journal*) (“My understanding is, and again this is something that’s going to go back—we’re going to go back over after the fact is, the plan that the New Orleans officials and the state officials put together called for the Superdome to be the refuge of last resort.”).

54. *Rove Off the Record on Katrina*, HUFFINGTON POST, Sept. 17, 2005, http://www.huffingtonpost.com/2005/09/17/rove-off-the-record-on-ka_n_7513.html (last visited Sept. 20, 2006).

response as a state and local problem.⁵⁵ A House report blamed local police departments for lack of effectiveness and faulted the governor of Louisiana and the New Orleans mayor for delaying the order for mandatory evacuation.⁵⁶ A White House report blamed Gulf Coast officials for not adequately anticipating massive evacuations.⁵⁷ State officials also turned against the local government, holding New Orleans accountable for implementing an inadequate local emergency plan and for overestimating its level of preparedness.⁵⁸ Local officials returned the favor, impressing upon the media the failures of the federal government to set the right priorities⁵⁹ and its delayed response to cries for help.⁶⁰ Similarly, state officials blamed the federal government for not funding fortifications to the New Orleans levees and for failing to send troops, supplies, and other assistance quickly enough.⁶¹ Local⁶² and state⁶³ officials blamed FEMA

55. See *Newsnight with Aaron Brown* (CNN television broadcast Sept. 6, 2005) (transcript available at <http://transcripts.cnn.com/TRANSCRIPTS/0509/06/asb.02.html> (last visited Sept. 20, 2006)) (“[I]t’s the local officials trying to handle the problem. When they can’t handle the problem, they go to the state. And the state does what they can do. And if they need assistance from FEMA and the federal government, they ask for it. And it’s delivered.”).

56. H.R. REP. NO 109-377, at 108 (2006). For a summary of the extensive House Report, see generally Julia Malone, *Katrina Verdict: Plenty of Blame*, ATLANTA J.-CONST., Feb. 24, 2006, at A3.

57. THE FEDERAL RESPONSE TO HURRICANE KATRINA: LESSONS LEARNED 37 (2006), <http://www.whitehouse.gov/reports/katrina-lessons-learned.pdf> (last visited Oct. 12, 2006).

58. Susan B. Glasser & Josh White, *Storm Exposed Disarray at the Top*, WASH. POST, Sept. 4, 2005, at A1 (“Other federal and state officials pointed to Louisiana’s failure to measure up to national disaster response standards, noting that the federal plan advises state and local emergency managers not to expect federal aid for 72 to 96 hours, and base their own preparedness efforts on the need to be self-sufficient for at least that period. ‘Fundamentally the first breakdown occurred at the local level,’ said one state official who works with FEMA. ‘Did the city have the situational awareness of what was going on within its borders? The answer was no.’”).

59. See Waugh, *supra* note 3.

60. Mira Oberman & Patrick Moser, *Troops, Aid Finally Reach New Orleans*, IAFRICA, Sept. 3, 2005, <http://iafrica.com/news/worldnews/479881.htm> (last visited Sept. 27, 2006) (“‘It’s too doggone late!’ Nagin said in an angry and emotional interview aired on CNN.”).

61. See VandeHei, *supra* note 52 (“Louisiana officials pushed back hard against the White House yesterday, sharply criticizing President Bush for offering a tentative and insufficient response to the obliteration of New Orleans and then trying to shift the blame to the state and local governments.”).

62. For instance, Jefferson Parish Emergency Management Director Maestri told the *Washington Post* that city officials had forwarded a list of needs after the storm, but the federal government was largely unresponsive. See Susan B. Glasser & Michael Grunwald, *The Steady Buildup to a City’s Chaos*, WASH. POST, Sept. 11, 2005, at A1 (“[W]e sat here for five days waiting. Nothing!”); see also Elisabeth Bumiller, *Democrats and Others Criticize White House’s Response to Disaster*, N.Y. TIMES, Sept. 2, 2005, at A1 (“‘This is a national disgrace. FEMA has

for the slow response in the days following Hurricane Katrina.⁶⁴ Similarly, several Democrats accused FEMA of not responding adequately to the emergency conditions in the Gulf Coast.⁶⁵

In the weeks after Hurricane Katrina a CNN/USA Today/Gallup poll reported that only 13 percent of respondents held President Bush responsible for the failed relief efforts in the first days after Hurricane Katrina made landfall.⁶⁶ This low number may suggest that overall accountability is well below full accountability.⁶⁷ Would accountability add up to 100 percent if the survey had polled respondents on the relative responsibility of each political actor involved?

I submit that shared political accountability reduces the total sum of political accountability, i.e., creates “political accountability deadweight losses.” When political responsibilities are shared, there is uncertainty about which political actor is responsible. The uncertainty is exacerbated when politicians point fingers. It is this uncertainty that creates political accountability deadweight losses, on which government actors can then capitalize.

I conducted a preliminary test of my argument in a survey. Participants were asked to read a scenario that described how some

been here three days, yet there is no command and control. We can send massive amounts of aid to tsunami victims, but we can't bail out the city of New Orleans?” (quoting Terry Ebbert, head of the New Orleans emergency operations)).

63. See Michelle Millhollon, *Blanco Says Feds Pledged Buses*, ADVOC. (Baton Rouge, La.), Sept. 18, 2005, at A1. (“[W]ith the FEMA buses still not in sight, [Governor Kathleen] Blanco called the White House . . .”).

64. Much of this initial criticism was supported in the House report. See Spencer S. Hsu, *Katrina Report Spreads Blame*, WASH. POST, Feb. 12, 2006 at A1 (“A draft of the report . . . includes 90 findings of failures at all levels of government . . .”).

65. See, e.g., Hope Yen, Associated Press, *Audits Show Millions in Katrina Aid Wasted*, COLUMBUS DISPATCH, Feb. 14, 2006, at A1 (“‘Once again, FEMA failed to adequately plan for the very type of disaster that occurs virtually every year,’ said Susan Collins, R-Maine . . . Joseph Lieberman . . . said hurricane victims and taxpayers alike are being ‘ripped off.’ ‘It’s unacceptable and ultimately infuriating. We need to do everything we can to insist that FEMA and DHS prepare for the next disaster . . .’”); News Release, U.S. House of Representatives, Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina (Sept. 27, 2005), available at http://Katrina.house.gov/press_releases/release_09_27_05.doc (calling Michael Brown “‘the government official most responsible for the inadequate response,’” and urging the committee to “‘call him . . . without delay’” (quoting Rep. Henry Waxman)).

66. *Poll: Most Americans Believe New Orleans Will Never Recover*, CNN.COM, Sept. 8, 2005, <http://www.cnn.com/2005/US/09/07/katrina.poll> (last visited Sept. 26, 2006).

67. On the racial divide in the poll results, see generally Susan Page & Maria Puente, *Views of Whites, Blacks Differ Starkly on Disaster*, USA TODAY, Sept. 13, 2005, at 1A, and *Reactions to Katrina Split on Racial Lines*, CNN.COM, Sept. 13, 2005, <http://www.cnn.com/2005/US/09/12/katrina.race.poll> (last visited Sept. 17, 2006).

cities in Belgium were struck by a flood. An external commission was called to verify the damage, examine the cause of the flooding, and determine which government actors were responsible. Participants were randomly divided into two separate groups.⁶⁸ Group A received a scenario in which the external commission found that three different government departments were responsible for the three different causes of the flooding. Group B was told that only one government department was responsible for all three causes of the flooding. My hypothesis was that the total accountability assigned by Group B would be higher than that assigned by Group A. In other words, when only one government agency is responsible, the overall accountability would be higher relative to scenarios in which three agencies were responsible. Some amount of political accountability is lost when responsibility is divided. The results confirm this hypothesis. A one-way analysis of variance (ANOVA) was conducted with the independent variable being the number of political actors responsible (one versus three) and the dependent variable being the sum of political responsibility assigned by the participants.⁶⁹ This analysis revealed a significant effect, $F(1, 101) = 7.35, p < .01$, showing that in situations in which political responsibility was assigned exclusively to one political actor, participants held this actor to a higher level of accountability (mean = 65.00%, std. dev. = 14.74), than when responsibilities were divided over three political actors (mean = 53.30%, std. dev. = 17.06).

The loss in the total sum of political accountability that occurs when responsibility is shared may explain why politicians engaged in a blame game following Katrina—the blame game exacerbates this

68. Participants were 103 male and female law students at Ghent University, between ages nineteen and twenty-nine (mean = 21.26%, std. dev. = 1.59). Of course, this age range undermines the external validity of this draft study. The age of the participants does not reflect the mean voting age in the United States. Also, cross-cultural differences may appear when running the study with American citizens rather than Belgian law students.

69. When three actors were responsible, total accountability was calculated as follows:

$$\frac{\sum_{i=1}^I x_i}{I} \times 10 = \text{mean percentage,}$$

where X_i is the responsibility of government i for causing the flood, measured on a ten point Likert scale. When only one actor was responsible, the ten point Likert scale was transformed into percentages.

loss. Accordingly, finger-pointing is an attractive strategy for individual politicians and politicians as a group because it reduces the total political costs of government failings.

B. Cognitive Bias and the Demand for Disaster Management

Apart from the loss in total political accountability resulting from shared responsibility among government actors, recent literature on cognitive behavior suggests that voters' cognitive bias reduces their demand for disaster preparation and mitigation policies.

In the economic literature, voters are assumed to be myopic and they tend to discount future value in favor of immediate benefits.⁷⁰ Researchers discovered that individuals have difficulty translating remote risks into their decisions. As a result, the public perception of remote risks often deviates substantially from what experts regard as the statistically accurate risk.⁷¹ Furthermore, individuals rarely seek out probability estimates, unless they have a clear reference point or context in which to evaluate the likelihood of an event occurring.⁷² Accordingly, "[p]eople may have difficulty gauging how concerned to feel about a 1 in 100,000 probability of death without some comparison points. Most people just do not know whether 1 in 100,000 is a large risk or a small risk."⁷³

Inhabitants of disaster-prone regions may discount remote risks even more than inhabitants of areas where disasters are infrequent. This stems from location-specific investments like relationships, professional life, and material possessions. Contemplating the risk of natural disaster is disconcerting. The theory of cognitive dissonance teaches that people tend to reject information that creates internal

70. For an overview of the literature on time inconsistencies of voters, see generally Susan C. Stokes, *Public Opinion and Market Reforms: The Limits of Economic Voting*, 29 COMP. POL. STUD. 499 (1996).

71. On the conflation of the terms *uncertainty* and *risk*, see James E. Krier, *Risk Assessment*, in 3 THE NEW PALGRAVE DICTIONARY OF ECONOMICS AND THE LAW, *supra* note 48, at 347.

72. Amos Tversky et al., *Contingent Weighting in Judgment and Choice*, 95 PSYCHOL. REV. 371, 383 (1988); see also Christopher K. Hsee, *The Evaluability Hypothesis: An Explanation for Preference Reversals between Joint and Separate Evaluations of Alternatives*, 67 ORGANIZATIONAL BEHAV. & HUM. DECISION PROCESSES 247, 247 (1996); Howard Kunreuther et al., *Making Low Probabilities Useful*, 23 J. RISK & UNCERTAINTY 103, 104 (2001).

73. HOWARD KUNREUTHER ET AL., U.S. DEPT. OF COMMERCE, RISK ANALYSIS FOR EXTREME EVENTS: ECONOMIC INCENTIVES FOR REDUCING FUTURE LOSSES 30 (2004), <http://www.bfrl.nist.gov/oaepublications/gcrs/04871.pdf> (last visited Oct. 7, 2006).

conflict in their lives.⁷⁴ Therefore, citizens in disaster-prone areas may discount the likelihood and potential impact of a hurricane or earthquake. As a result, many individuals will not consider the consequences of low probability events; instead, they treat such events as having a zero chance of occurring. Consequently, they may not demand loss mitigation strategies because they prefer not to think about the consequences of a natural disaster in the region—the “it will not happen to me” effect.⁷⁵

Individuals may also be disinterested in ex ante disaster planning because the benefits of such planning are reduced disproportionately by the remote possibility of the benefits ever being realized. This had led some to conclude that “low probabilities are inherently ineffective in eliciting reactions.”⁷⁶

Although a particular disaster preparation policy might be advisable from a cost-benefit perspective, voters who discount the value of the benefits may lead politicians to forego such investments.

But the gap between the public's perception of risk and the statistically correct estimate of the risk may also point in the other direction.⁷⁷ That is, even though individuals often ignore risk and treat low probability events as if the probability is zero,⁷⁸ other times they

74. See, e.g., George A. Akerlof & W.T. Dickens, *The Economic Consequences of Cognitive Dissonance*, 72 AM. ECON. REV. 307, 309 (1982) (“[P]ersons who have made decisions tend to discard information that would suggest such decisions are in error because the cognition that the decision might be in error is in conflict with the cognition that ego is a smart person.”).

75. See George Lowenstein et al., *Risk as Feelings*, 127 PSYCHOL. BULL. 267, 280 (2001) (“[A]dolescents either do not consider some potentially harmful consequences of risky behavior or underestimate the likelihood of these consequences happening to them.”).

76. KUNREUTHER ET AL., *supra* note 73, at 29. Even when data is presented to respondents, they elect not to use the information. See *id.* at 32 (“Uncertainty-avoiders who have the tendency to avoid negative emotions need not buy more protection but may prefer to avoid thinking about the need for protection and hence end up buying less.”); Wesley A. Magat et al., *Risk-Dollar Tradeoffs, Risk Perceptions, and Consumer Behavior*, in LEARNING ABOUT RISK 82 (W. Kip Viscusi & Wesley A. Magat eds., 1987); Colin F. Camerer & Howard Kunreuther, *Decision Processes for Low Probability Events: Policy Implications*, 8 J. ANALYSIS & MGMT. 565, 566 (1989) (“[P]ublic perceptions are often unrealistic.”).

77. See Paul Slovic et al., *Regulation of Risk: A Psychological Perspective*, in REGULATORY POLICY AND THE SOCIAL SCIENCES 241, 262 (Roger G. Noll ed., 1985) (“Why, for example, do some communities react vigorously against the location of a liquid-natural-gas terminal in their vicinity, despite the assurances of experts that it is safe?”).

78. See HOWARD KUNREUTHER ET AL., *DISASTER INSURANCE PROTECTION: PUBLIC POLICY LESSONS* 244 (1978) (“Our results strongly suggest that the consumer is the source of market failure. It thus may be necessary to substitute other institutional mechanisms for the free market if individuals are to be protected against the consequences of low probability high loss events.”).

will exaggerate the significance of low probability risks.⁷⁹ Probability perceptions are influenced by how easily events can be brought to an individual's attention—they rely on what is publicly available.⁸⁰ Accordingly, the massive media attention accompanying national disasters likely inflates individuals' perceptions of risk. Thus, disproportionate weight is given to salient, memorable, or vivid evidence.⁸¹

The probability estimate of the likelihood and impact of a natural disaster is likely exaggerated after a hurricane or earthquake occurs. As a result, voters may believe that a future disaster is more probable than the statistically correct estimate warrants.⁸²

Although the public may not be concerned with preparation before a disaster, it will pay close attention once a natural disaster occurs. Politicians will then be subject to close scrutiny, especially if it appears as if they did not anticipate the event adequately. Some scholars maintain that the appropriate policy approach is for politicians to ignore their constituents' preferences when they are based on statistically incorrect assessments of risks.⁸³ Although the public's exaggerated response is anticipated in statutes insulating governments from liability for flawed disaster management,⁸⁴

79. See Daniel Kahneman & Amos Tversky, *Prospect Theory: An Analysis of Decision under Risk*, 47 *ECONOMETRICA* 263, 281 (1979) (“[V]ery low probabilities are generally overweighted . . .”); Amos Tversky & Daniel Kahneman, *The Framing of Decisions and the Psychology of Choice*, 211 *SCI.* 453, 457 (1981) (“There are situations, however, in which the outcomes of an act affect the balance in an account that was previously set up by a related act.”).

80. See Amos Tversky & Daniel Kahneman, *Judgment Under Uncertainty: Heuristics and Biases*, 185 *SCI.* 1124, 1127 (1974) (“There are situations in which people assess the frequency of a class or the probability of an event by the ease with which instances or occurrences can be brought to mind.”).

81. Amos Tversky & Daniel Kahneman, *Availability: A Heuristic for Judging Frequency and Probability*, 5 *COGNITIVE PSYCHOL.* 207, 228 (1973) (“[D]ramatic and salient event[s] . . . are likely to be more memorable and easier to recall . . .”).

82. For instance, whenever a disaster occurs voters might switch from an ex ante preference for policies conducted on (discounted) cost-benefit analysis in favor of an ex ante preference in favor of policies that operate on the basis of the precautionary principle (according to which action should be guided by worst case scenarios).

83. Other commentators argue that the public often knows best about risk. See generally Clayton P. Gillette & James E. Krier, *Risks, Courts, and Agencies*, 138 *U. PA. L. REV.* 1027 (1990).

84. For an overview of statutory protection against governmental negligence liability in disaster management, see generally Lerner, *supra* note 2, at 336–40. Such immunity usually pertains to emergency planning, procurement of supplies for emergency preparedness, training

politicians have no such immunity at the polls. A politician concerned with getting reelected must contend with the political consequences of voters who may overreact to disaster relief failures.

Although voters' disinterest in disaster preparation may not discipline politicians before a disaster, their exaggerated interest after a disaster may cause politicians to adopt sound disaster management policies as to future disasters. An empirical verification of this proposition is beyond the scope of this Article. Note two caveats, however. First, if politicians will be held responsible (i.e., get voted out of office) for the suffering after a natural disaster, regardless of how much precautionary planning they did,⁸⁵ politicians may lack the incentive to plan in the first place. Second, the public's heightened sensitivity to disaster preparedness after a disaster may be short-lived. As a result, the political accountability costs of inadequate preparation may be limited. In this regard, politicians may be able to disregard voters' heightened demand, unless a disaster precedes an election by a short enough time span so that the politician will be held fully accountable.

CONCLUSION

This Article has focused on the underlying causes of the alleged deficiency of national disaster planning. I have argued that such failings can be explained by the shared political accountability in national disaster management. Because the public views the responsibility for national disasters as shared among the different levels of government, the decisions of one political actor affect the standing of other political actors. Using the concept of horizontal political externalities among government actors, I argued that investments in disaster preparation and ex post relief have different effects on political accountability. Additional research on the effect of political externalities will be needed to answer many of the questions I have raised. In particular, the empirical validity of the role of horizontal political externalities awaits testing. Surveys, such as the tentative experimental design in Part II.A, could measure whether action by one level of government has a positive (or negative) impact on other levels of government that were not involved in the action.

of personnel, sheltering, evacuations, emergency transportation, supply of rescue and medical services, emergency police and fire services, public utility service, etc. *Id.* at 336-37.

85. *Id.* at 333 ("As disaster is, by definition, a situation beyond control.").

Studies of this type could manipulate various variables that may influence the public's perception of shared accountability, e.g., the allocation of responsibilities, types of media coverage, and finger-pointing among politicians. Many of these issues can also be addressed by using existing field data on elections and approval ratings. For example, correlation studies might trace the effects of decisionmaking by one level of government on the election results of other levels. Existing studies in political science, which evaluate congressional election results in relation to presidential performance, may be useful for this purpose.

Furthermore, I suggested that shared political responsibilities may reduce overall political accountability. As a result of shared political accountability various governmental bodies look to one another and engage in a blame game that blurs the public perception of political accountability. The tentative experiment in Part II.A seemed to confirm this hypothesis, but, as with any pilot study, it lacked the methodological rigor to provide robust support for the suggested effect of shared accountability and political deadweight losses. Also, the blame game might actually bring attention to political failures that might not otherwise have received as much attention. If so, the blame game is a dominant strategy for politicians only when one politician defects, i.e., one politician starts pointing fingers. Assuming that the blame game brings more attention than would otherwise exist, it would be useful to explore the conditions under which a politician would defect.

Although horizontal political externalities may only be a partial explanation for disaster management failures, they provide an interesting inroad for further research. In order to address the many government failings exposed by Hurricane Katrina, an improved understanding of the inner workings of disaster management policy seems essential.
